PRINTER RUSH

25

(PTO ASSISTANCE)

Application :	10 077 051	**Examiner :**	R Dharia	**GAU :**	2141
From:	mg	**Location:**	(IDC) FMF FDC	**Date:**	02.21.06

Tracking #: 10 077 051 EFM Week Date: 11.28.05

DOC CODE	DOC DATE	MISCELLANEOUS
☐ 1449		☐ Continuing Data
☐ IDS		☐ Foreign Priority
☐ CLM		☐ Document Legibility
☐ IIFW		☐ Fees
☐ SRFW		☐ Other
☑ DRW	05.09.02	
☐ OATH		
☐ 312		
☐ SPEC		

[RUSH] **MESSAGE:**

Attention: CHIEF DRAFTPERSON

Please provide a clear copy of the approved set of drawings.

thank c

[XRUSH] **RESPONSE:**

Dwg corrected

INITIALS: WS

NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.

REV 10/04

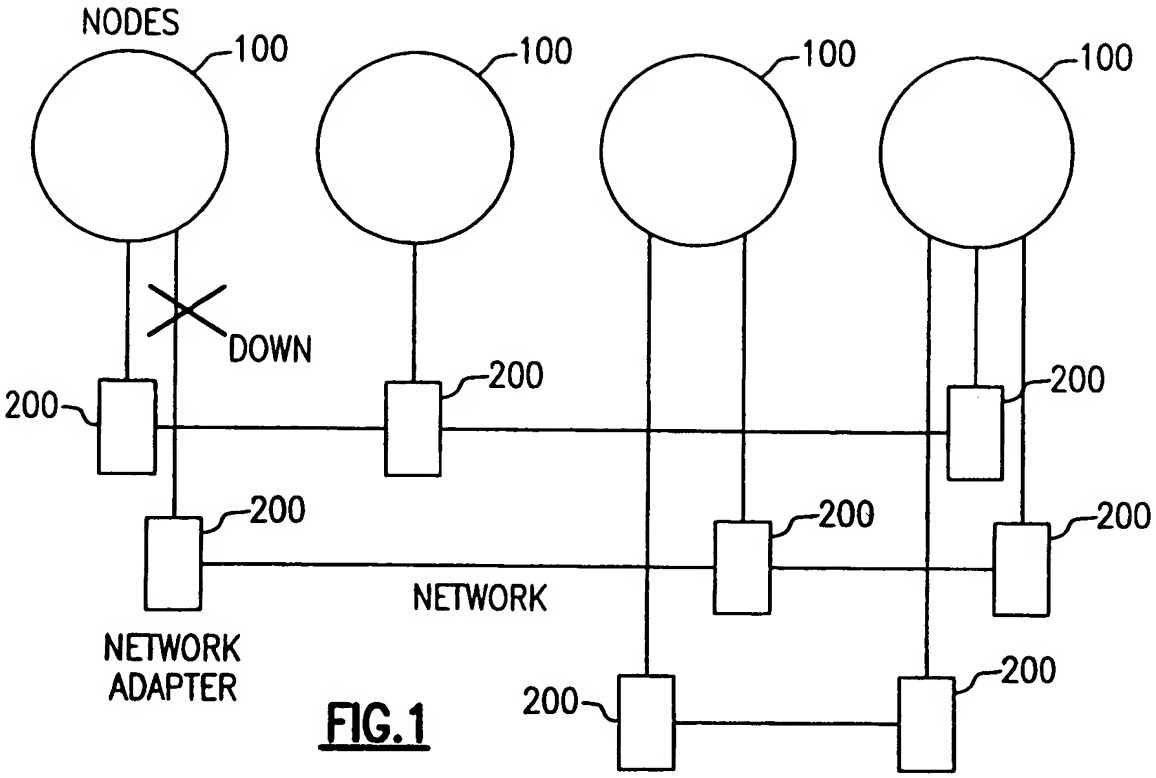


FIG.1

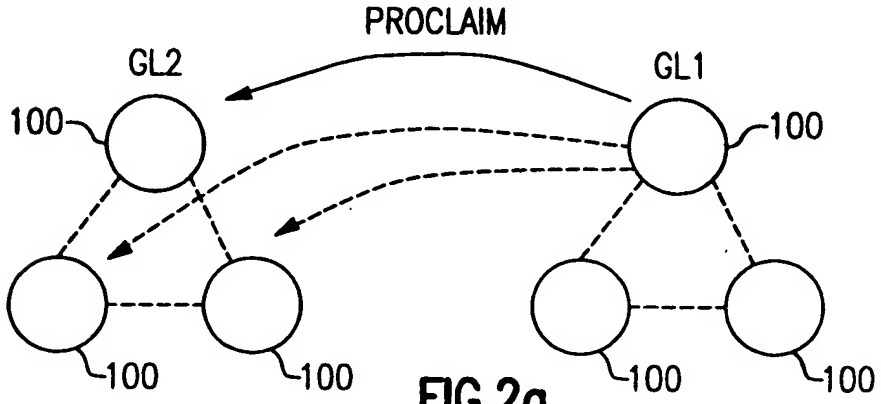


FIG.2a

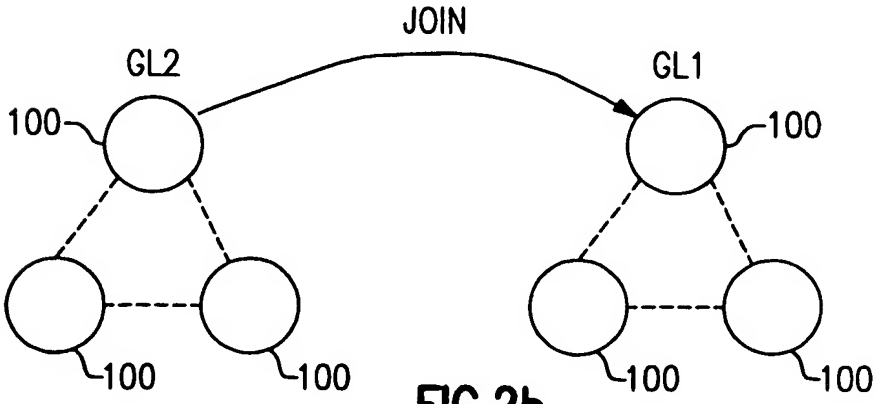


FIG.2b

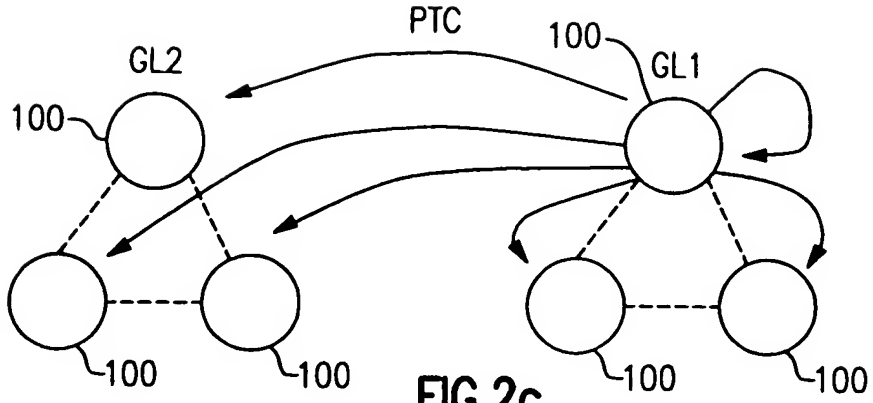

PTC
100
GL2
GL1
100
100
100
100
100

FIG.2c

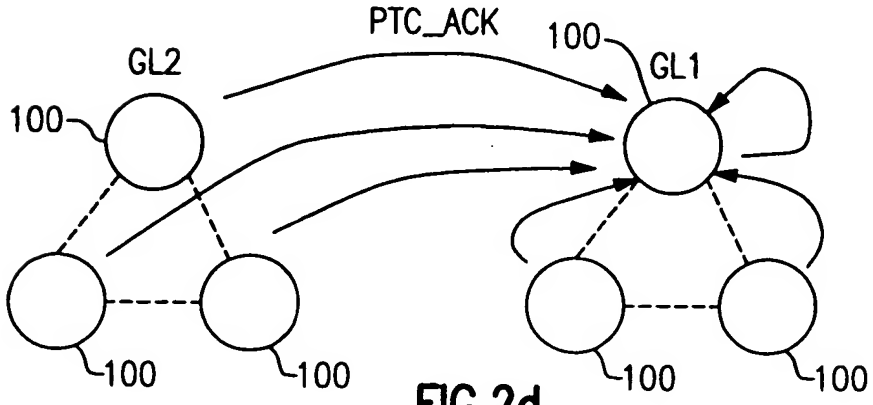

PTC_ACK
100
GL2
GL1
100
100
100
100
100

FIG.2d

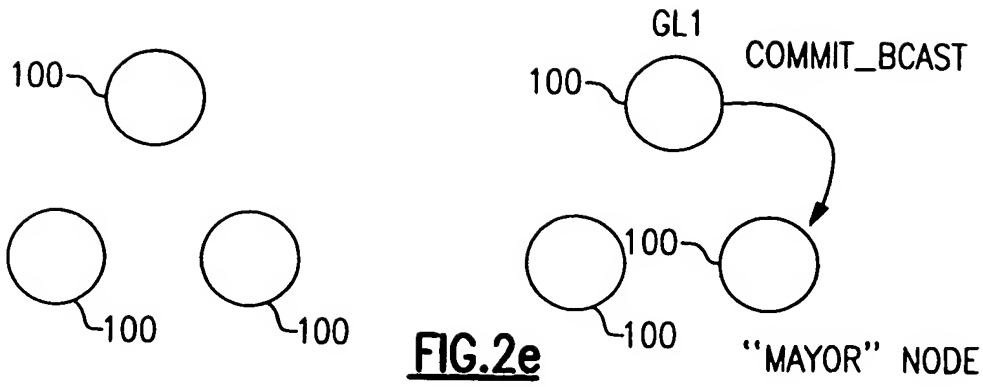


FIG.2e

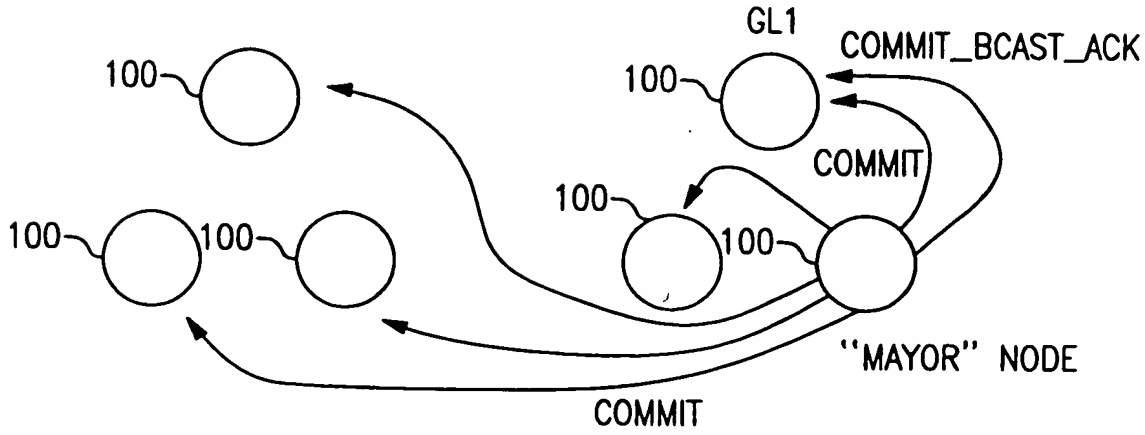


FIG.2f

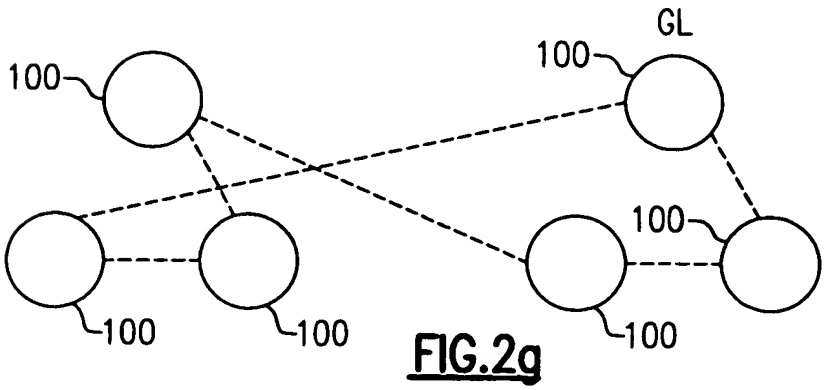


FIG.2g

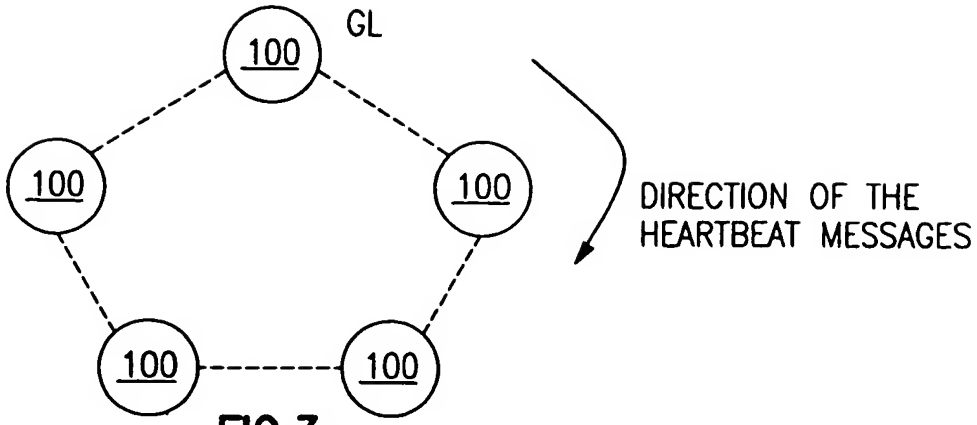


FIG.3a

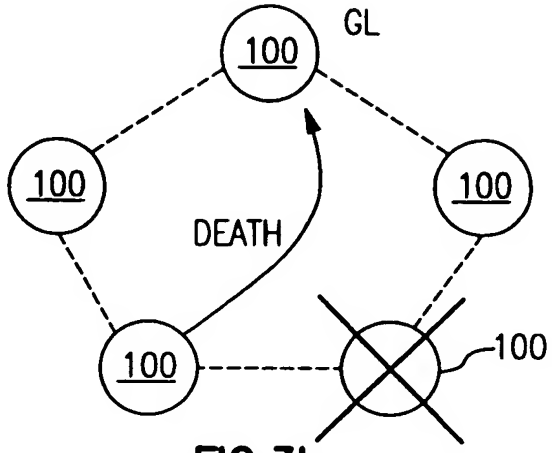


FIG.3b

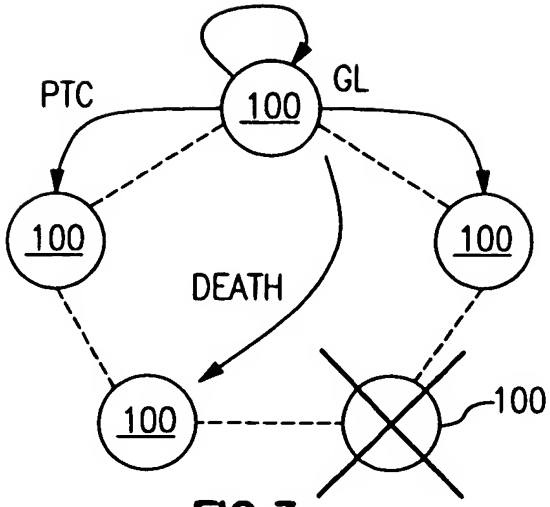


FIG.3c

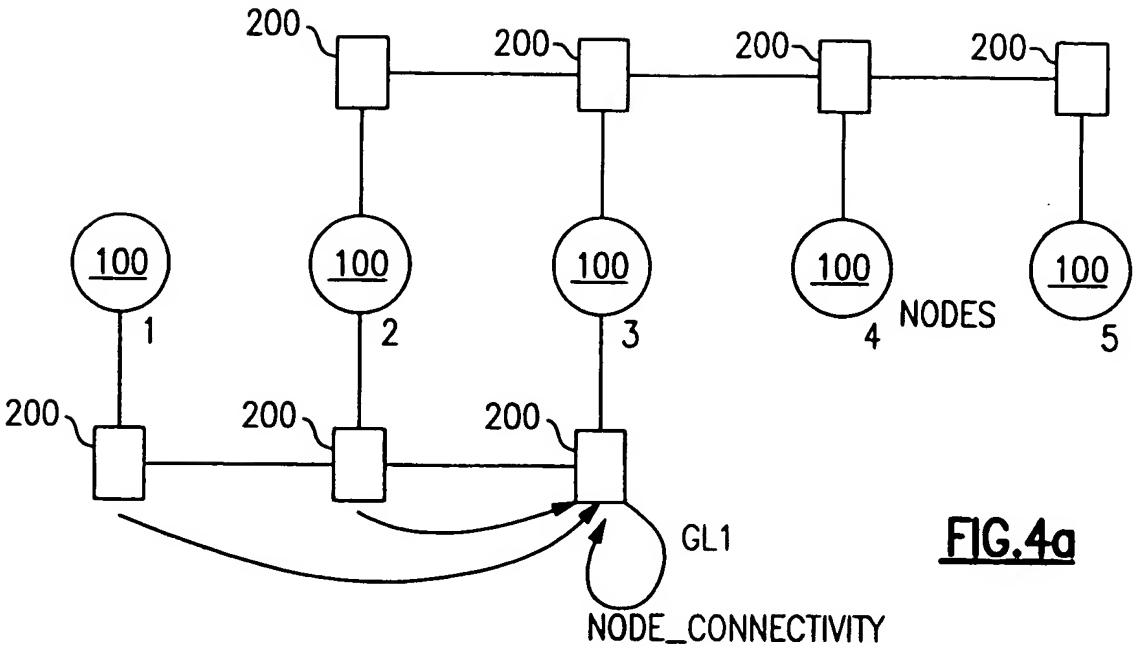

200
200
200
200
100
100
100
100
100
1
2
3
4
5
NODES
200
200
200
GL1
NODE_CONNECTIVITY

FIG.4a

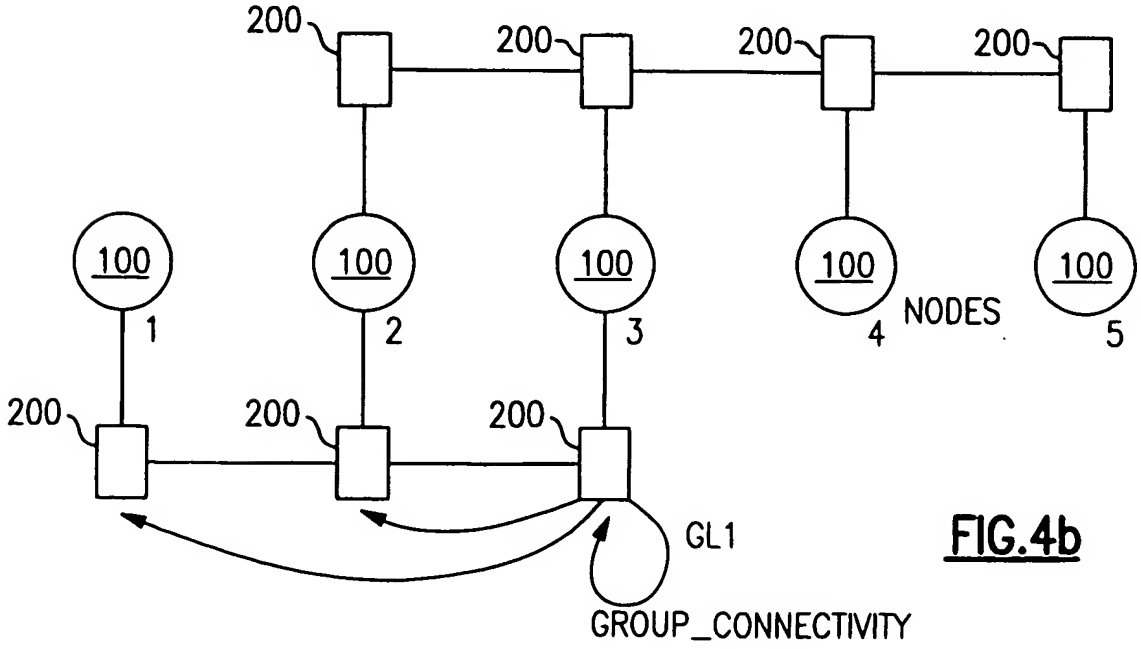

200
200
200
200
100
100
100
100
100
1
2
3
4
5
NODES
200
200
200
GL1
GROUP_CONNECTIVITY

FIG.4b

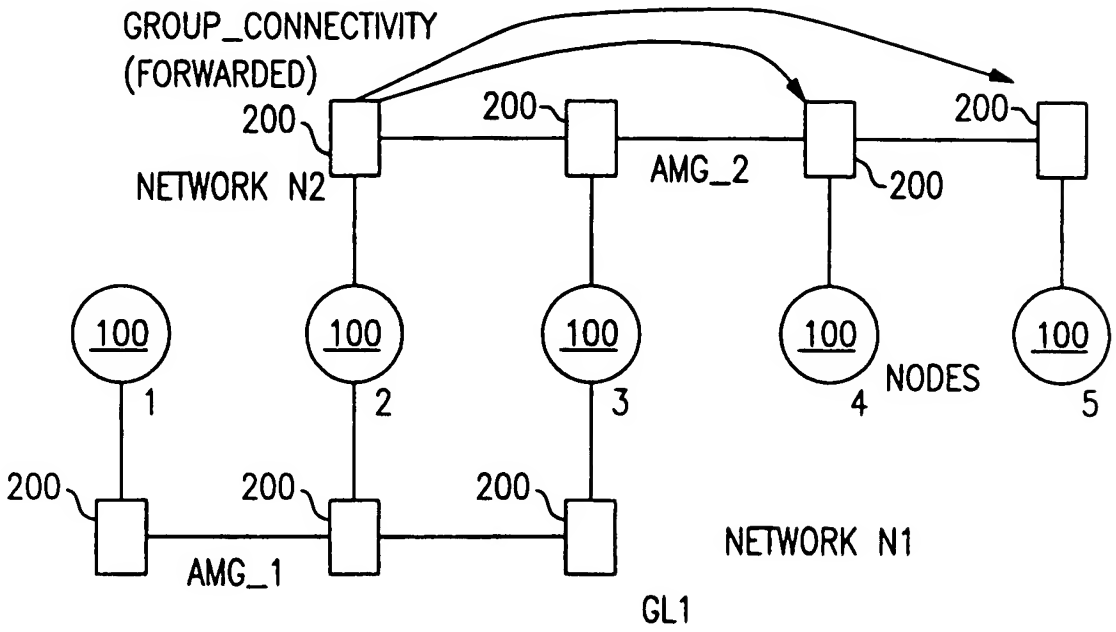
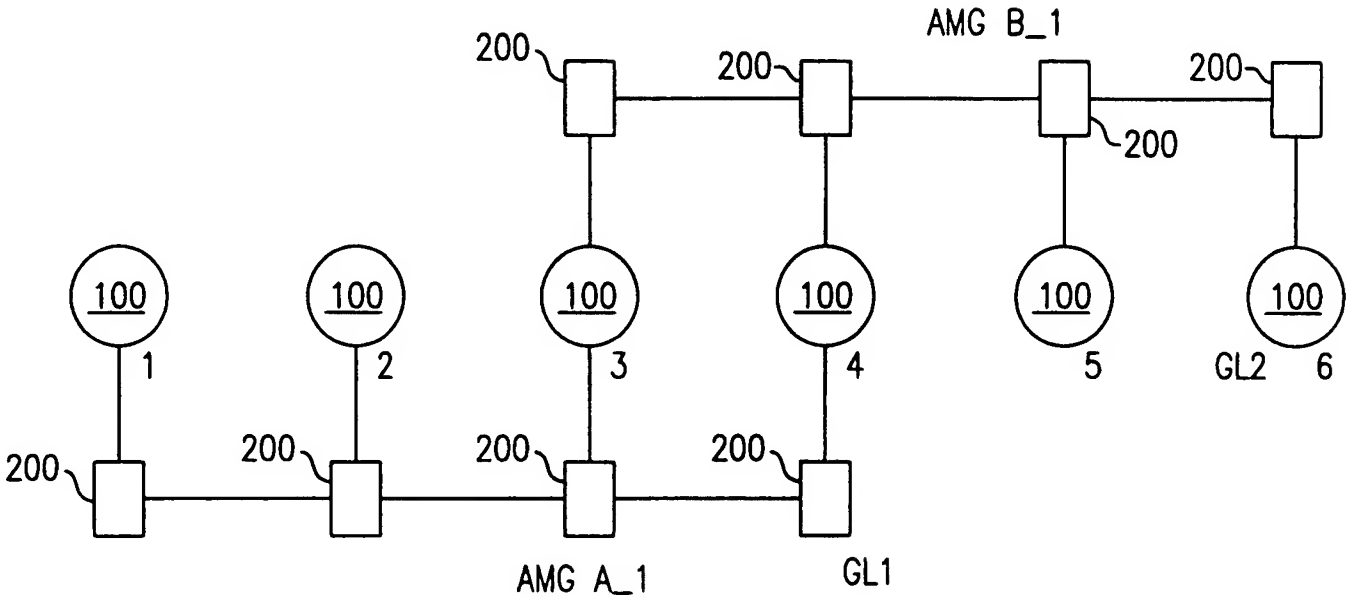
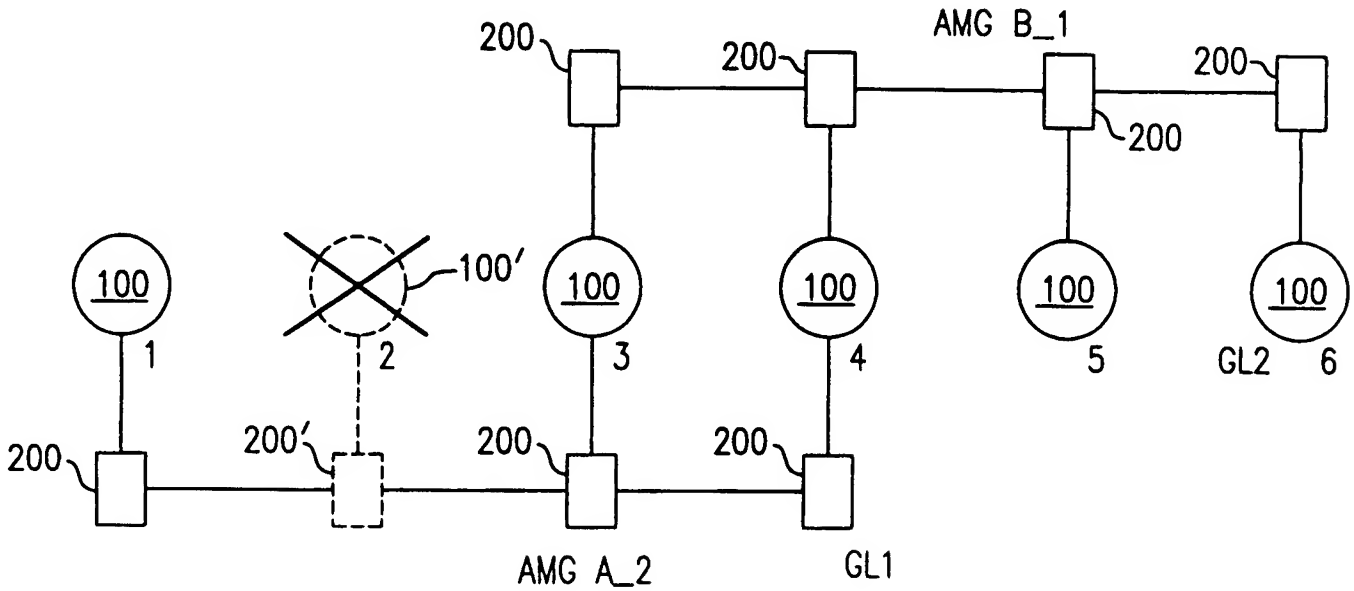

GROUP_CONNECTIVITY
(FORWARDED)
200
200
200
NETWORK N2
AMG_2
200
100
100
100
100
100
NODES
1
2
3
4
5
200
200
200
AMG_1
NETWORK N1
GL1

FIG.4c



NCT AT NODE 5	1	2	3	4	5	6
			B_1	B_1	B_1	B_1
	A_1	A_1	A_1	A_1		

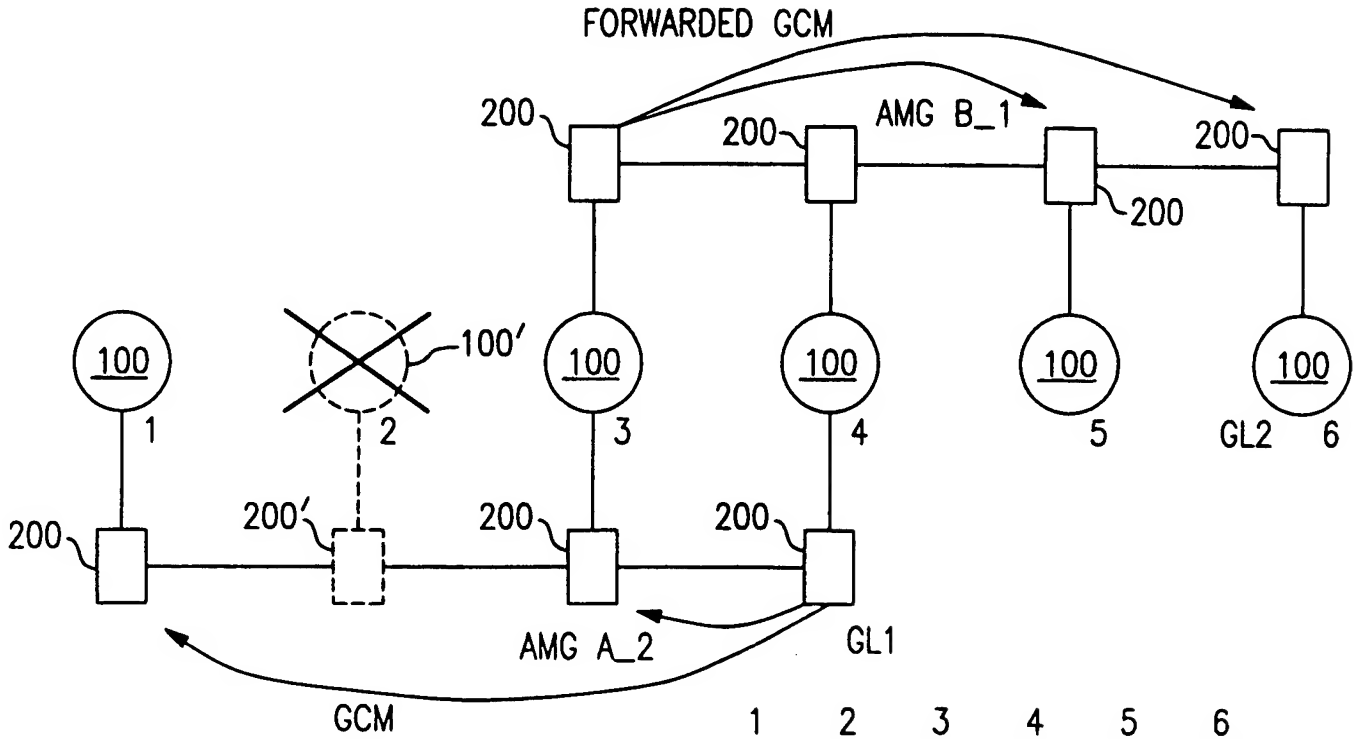
FIG.5a



NCT AT NODE 5

1	2	3	4	5	6
		B_1	B_1	B_1	B_1
A_1	A_1	A_1	A_1		

FIG.5b



NCT AT NODE 5

1	2	3	4	5	6
		B_1	B_1	B_1	B_1
A_2	A_1	A_2	A_2		

FIG.5c

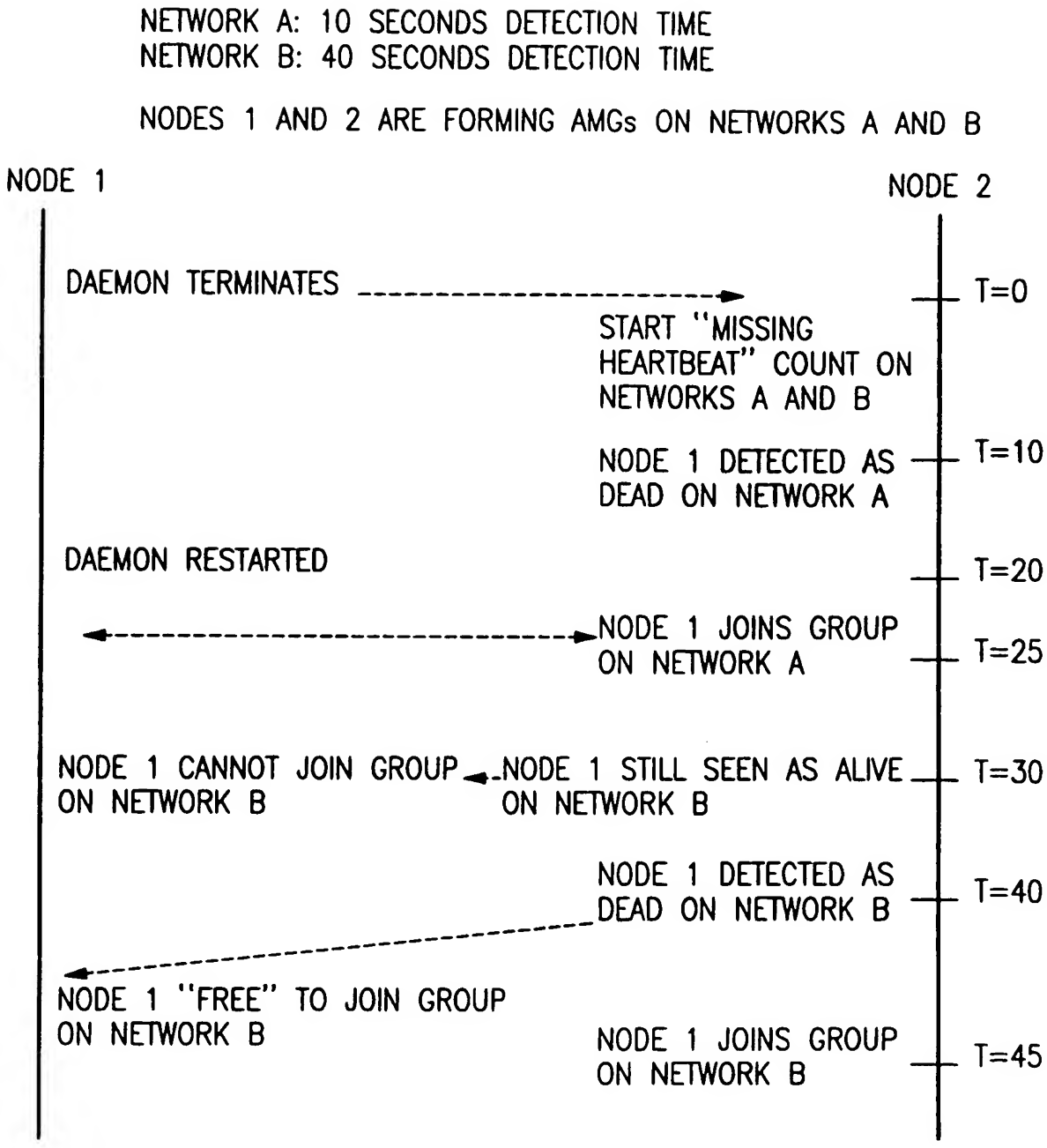

NETWORK A: 10 SECONDS DETECTION TIME
NETWORK B: 40 SECONDS DETECTION TIME
NODES 1 AND 2 ARE FORMING AMGs ON NETWORKS A AND B
NODE 1
NODE 2
DAEMON TERMINATES
T=0
START "MISSING HEARTBEAT" COUNT ON NETWORKS A AND B
NODE 1 DETECTED AS DEAD ON NETWORK A
T=10
DAEMON RESTARTED
T=20
NODE 1 JOINS GROUP ON NETWORK A
T=25
NODE 1 CANNOT JOIN GROUP ON NETWORK B
NODE 1 STILL SEEN AS ALIVE ON NETWORK B
T=30
NODE 1 DETECTED AS DEAD ON NETWORK B
T=40
NODE 1 "FREE" TO JOIN GROUP ON NETWORK B
NODE 1 JOINS GROUP ON NETWORK B
T=45

FIG.6

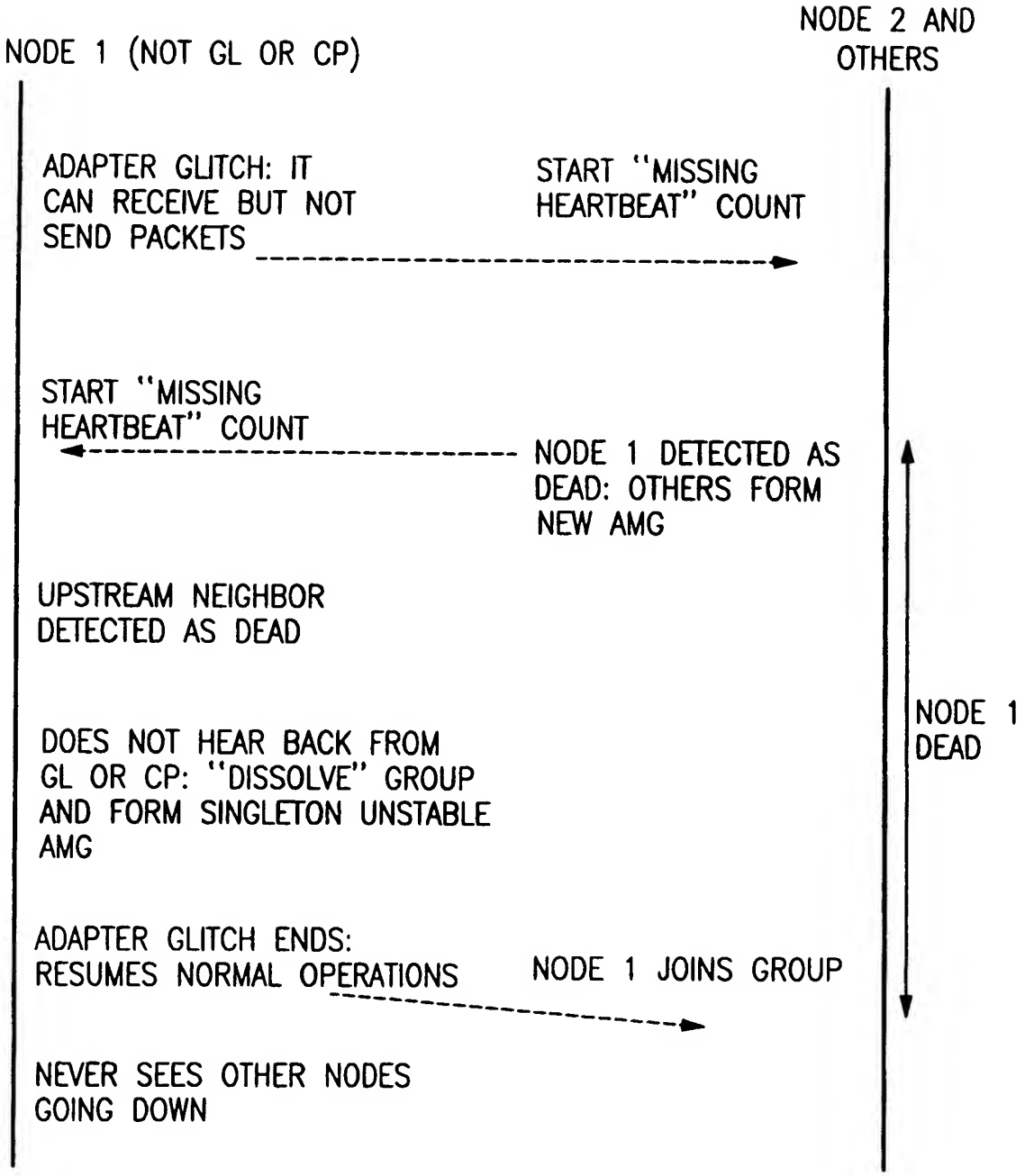

NODE 1 (NOT GL OR CP)
NODE 2 AND OTHERS
ADAPTER GLITCH: IT CAN RECEIVE BUT NOT SEND PACKETS
START "MISSING HEARTBEAT" COUNT
START "MISSING HEARTBEAT" COUNT
NODE 1 DETECTED AS DEAD: OTHERS FORM NEW AMG
UPSTREAM NEIGHBOR DETECTED AS DEAD
NODE 1 DEAD
DOES NOT HEAR BACK FROM GL OR CP: "DISSOLVE" GROUP AND FORM SINGLETON UNSTABLE AMG
ADAPTER GLITCH ENDS: RESUMES NORMAL OPERATIONS
NODE 1 JOINS GROUP
NEVER SEES OTHER NODES GOING DOWN

FIG.7

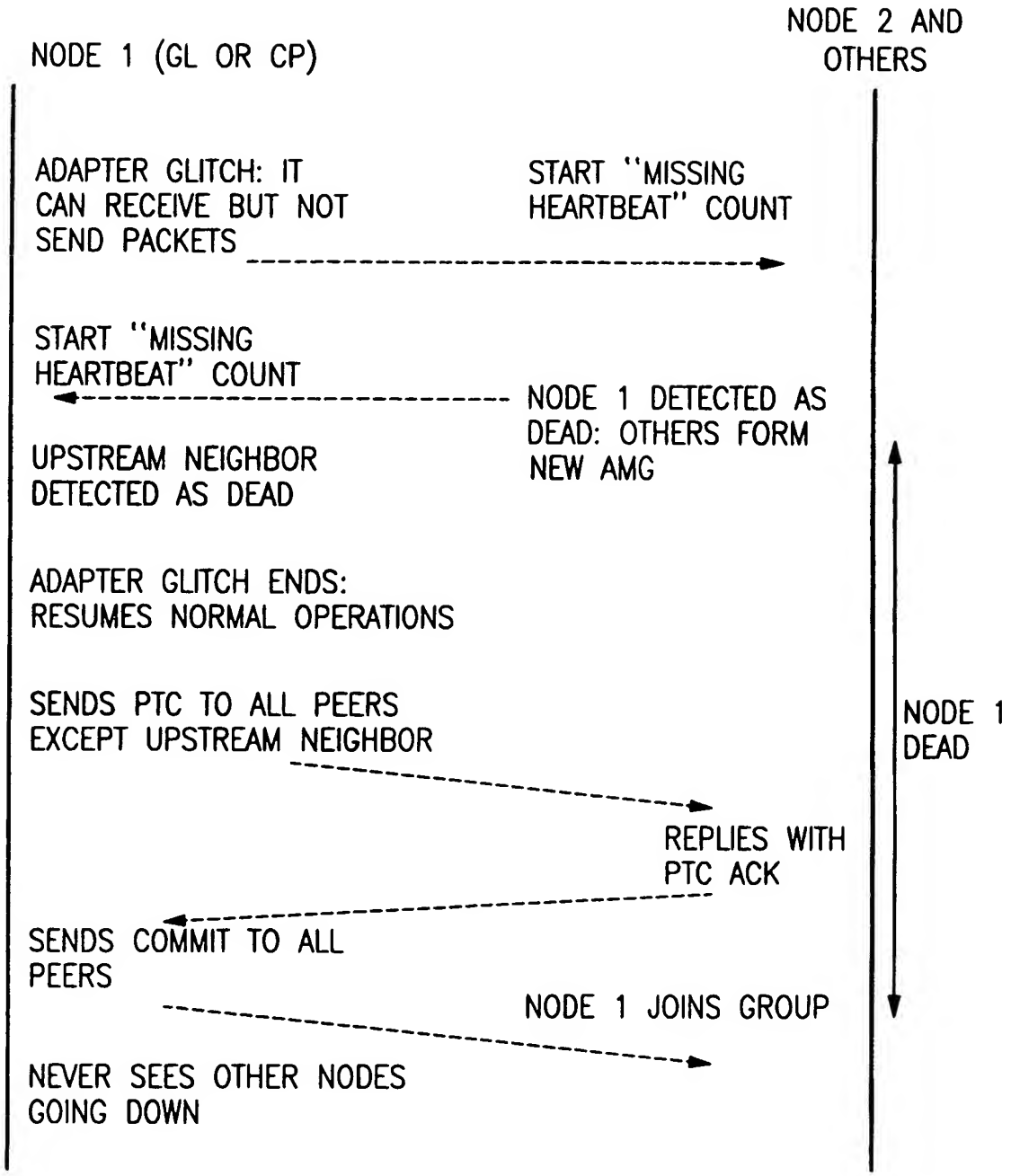

NODE 1 (GL OR CP)
NODE 2 AND OTHERS
ADAPTER GLITCH: IT CAN RECEIVE BUT NOT SEND PACKETS
START "MISSING HEARTBEAT" COUNT
START "MISSING HEARTBEAT" COUNT
NODE 1 DETECTED AS DEAD: OTHERS FORM NEW AMG
UPSTREAM NEIGHBOR DETECTED AS DEAD
ADAPTER GLITCH ENDS: RESUMES NORMAL OPERATIONS
SENDS PTC TO ALL PEERS EXCEPT UPSTREAM NEIGHBOR
NODE 1 DEAD
REPLIES WITH PTC ACK
SENDS COMMIT TO ALL PEERS
NODE 1 JOINS GROUP
NEVER SEES OTHER NODES GOING DOWN

FIG.8

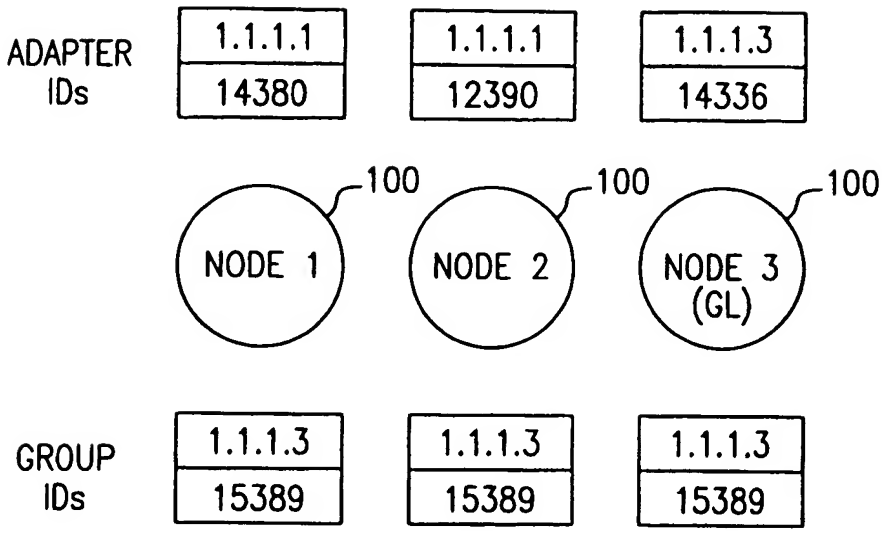

ADAPTER IDs
1.1.1.1
14380
1.1.1.1
12390
1.1.1.3
14336
100
100
100
NODE 1
NODE 2
NODE 3 (GL)
GROUP IDs
1.1.1.3
15389
1.1.1.3
15389
1.1.1.3
15389

FIG.9

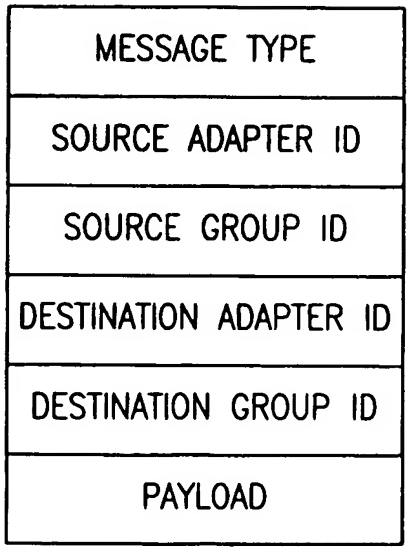

MESSAGE TYPE
SOURCE ADAPTER ID
SOURCE GROUP ID
DESTINATION ADAPTER ID
DESTINATION GROUP ID
PAYLOAD

FIG.10

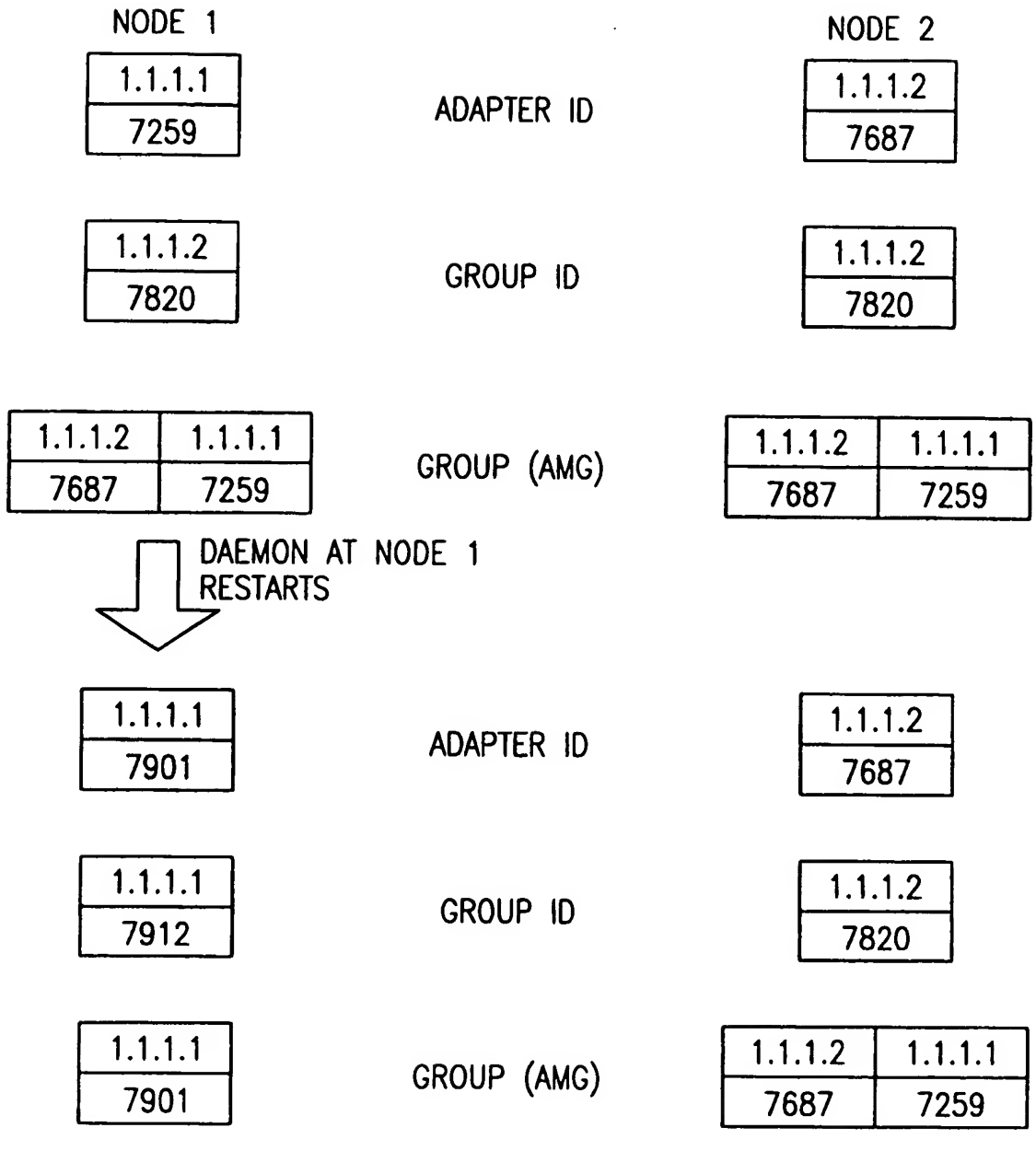

NODE 1
NODE 2
1.1.1.1
7259
ADAPTER ID
1.1.1.2
7687
1.1.1.2
7820
GROUP ID
1.1.1.2
7820
1.1.1.2
7687
1.1.1.1
7259
GROUP (AMG)
1.1.1.2
7687
1.1.1.1
7259
DAEMON AT NODE 1
RESTARTS
1.1.1.1
7901
ADAPTER ID
1.1.1.2
7687
1.1.1.1
7912
GROUP ID
1.1.1.2
7820
1.1.1.1
7901
GROUP (AMG)
1.1.1.2
7687
1.1.1.1
7259

FIG.11

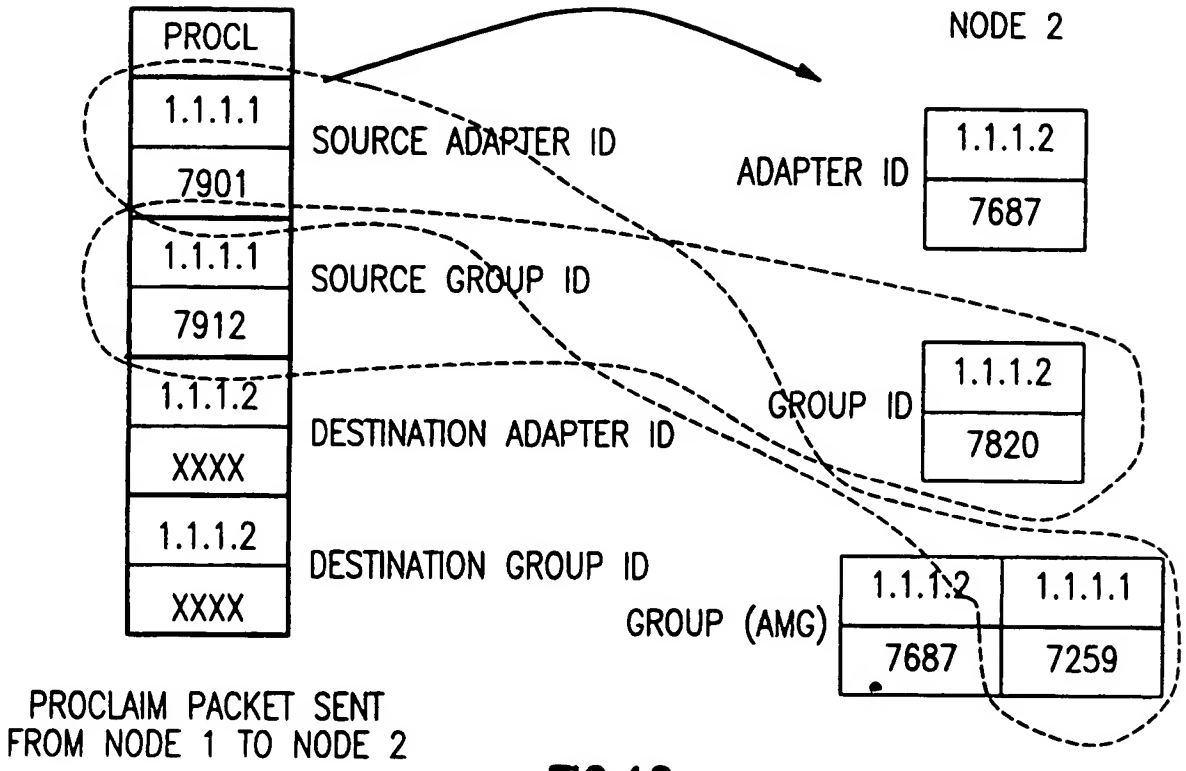

PROCL
1.1.1.1
7901
1.1.1.1
7912
1.1.1.2
XXXX
1.1.1.2
XXXX
SOURCE ADAPTER ID
SOURCE GROUP ID
DESTINATION ADAPTER ID
DESTINATION GROUP ID
NODE 2
ADAPTER ID
1.1.1.2
7687
GROUP ID
1.1.1.2
7820
GROUP (AMG)
1.1.1.2
1.1.1.1
7687
7259
PROCLAIM PACKET SENT
FROM NODE 1 TO NODE 2

FIG.12

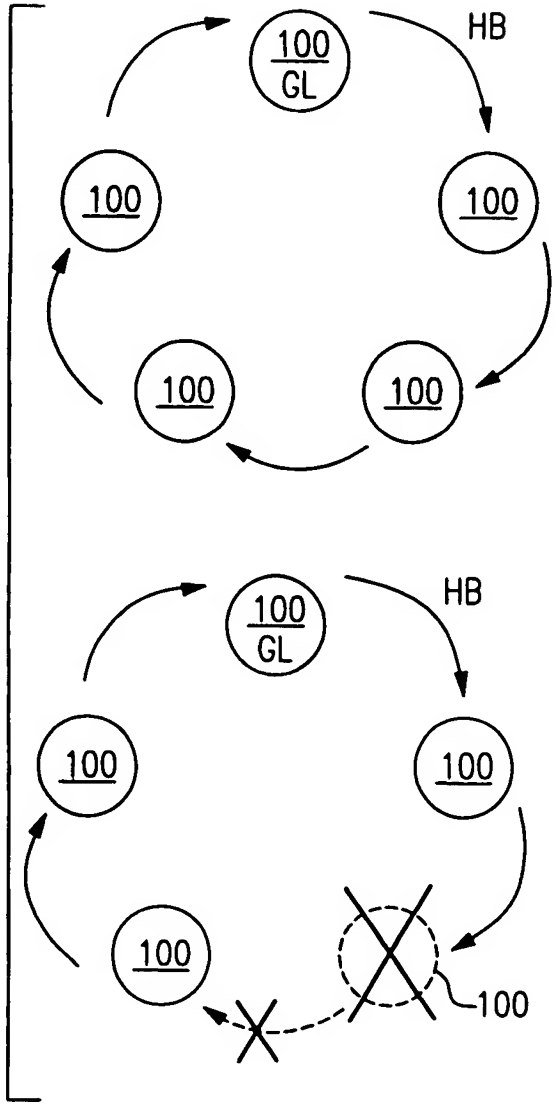


FIG.13a

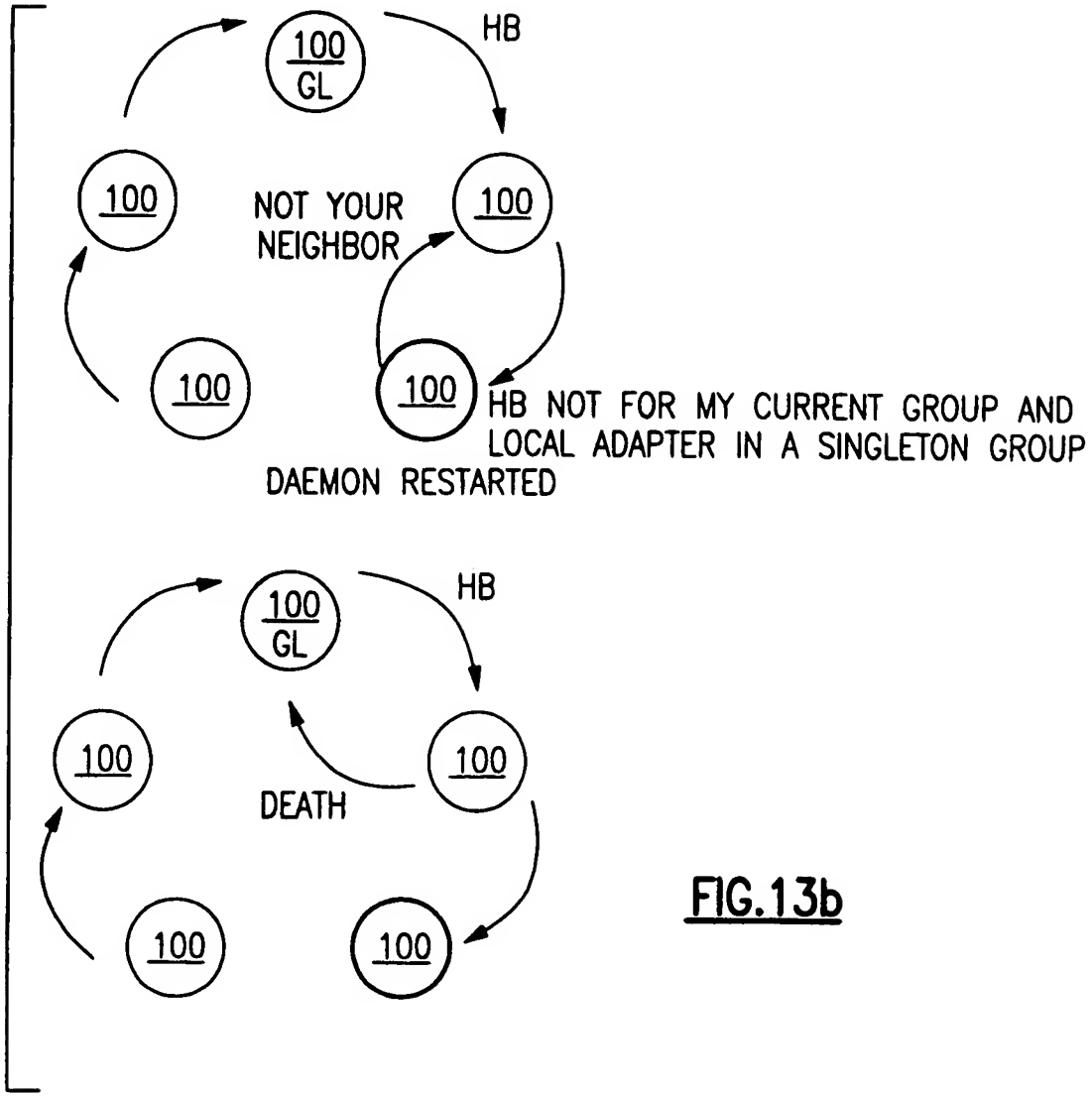


FIG.13b

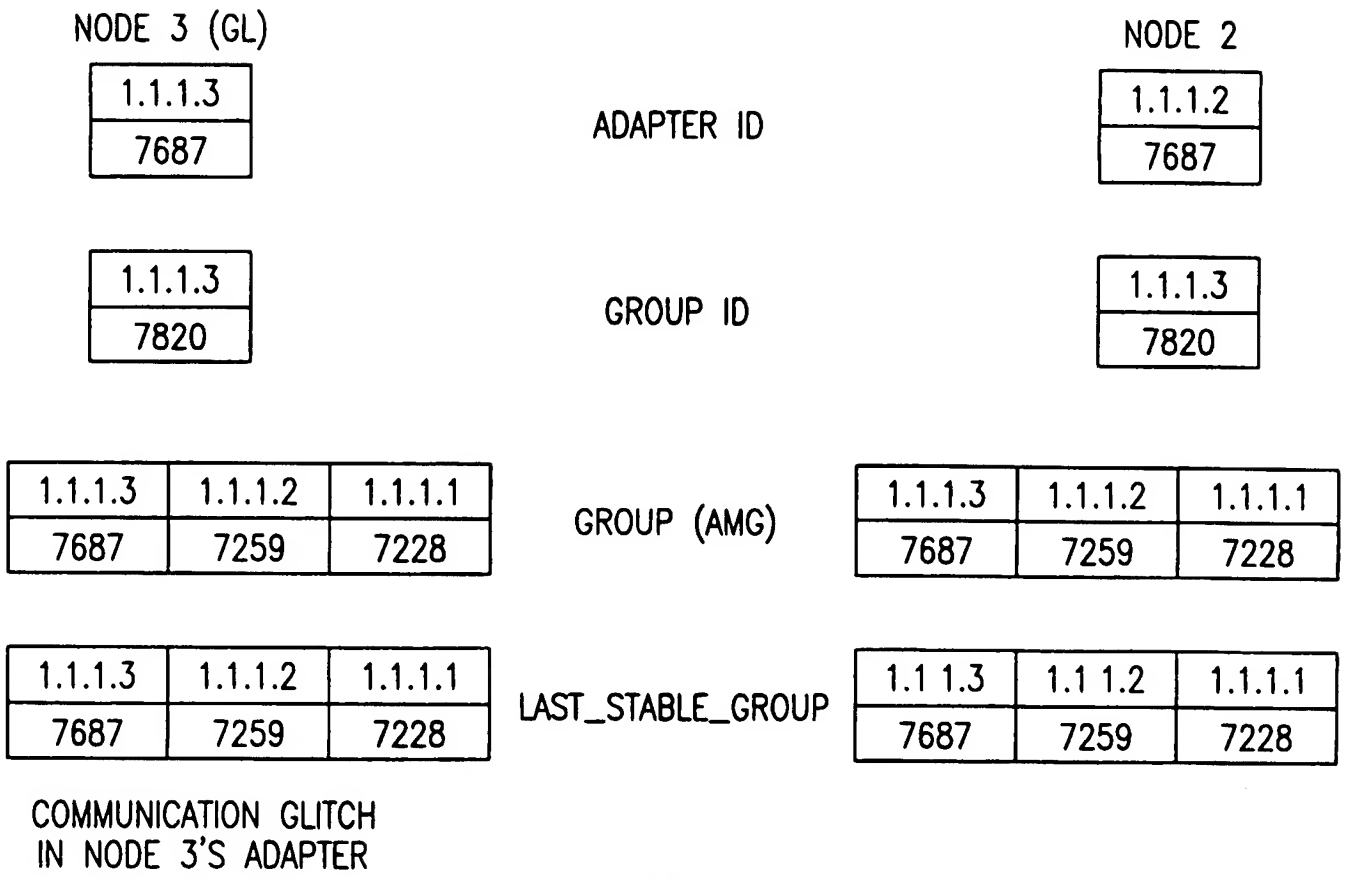

NODE 3 (GL)
1.1.1.3
7687
ADAPTER ID
NODE 2
1.1.1.2
7687
1.1.1.3
7820
GROUP ID
1.1.1.3
7820
1.1.1.3
1.1.1.2
1.1.1.1
7687
7259
7228
GROUP (AMG)
1.1.1.3
1.1.1.2
1.1.1.1
7687
7259
7228
1.1.1.3
1.1.1.2
1.1.1.1
7687
7259
7228
LAST_STABLE_GROUP
1.1 1.3
1.1 1.2
1.1.1.1
7687
7259
7228
COMMUNICATION GLITCH
IN NODE 3'S ADAPTER

FIG.14a

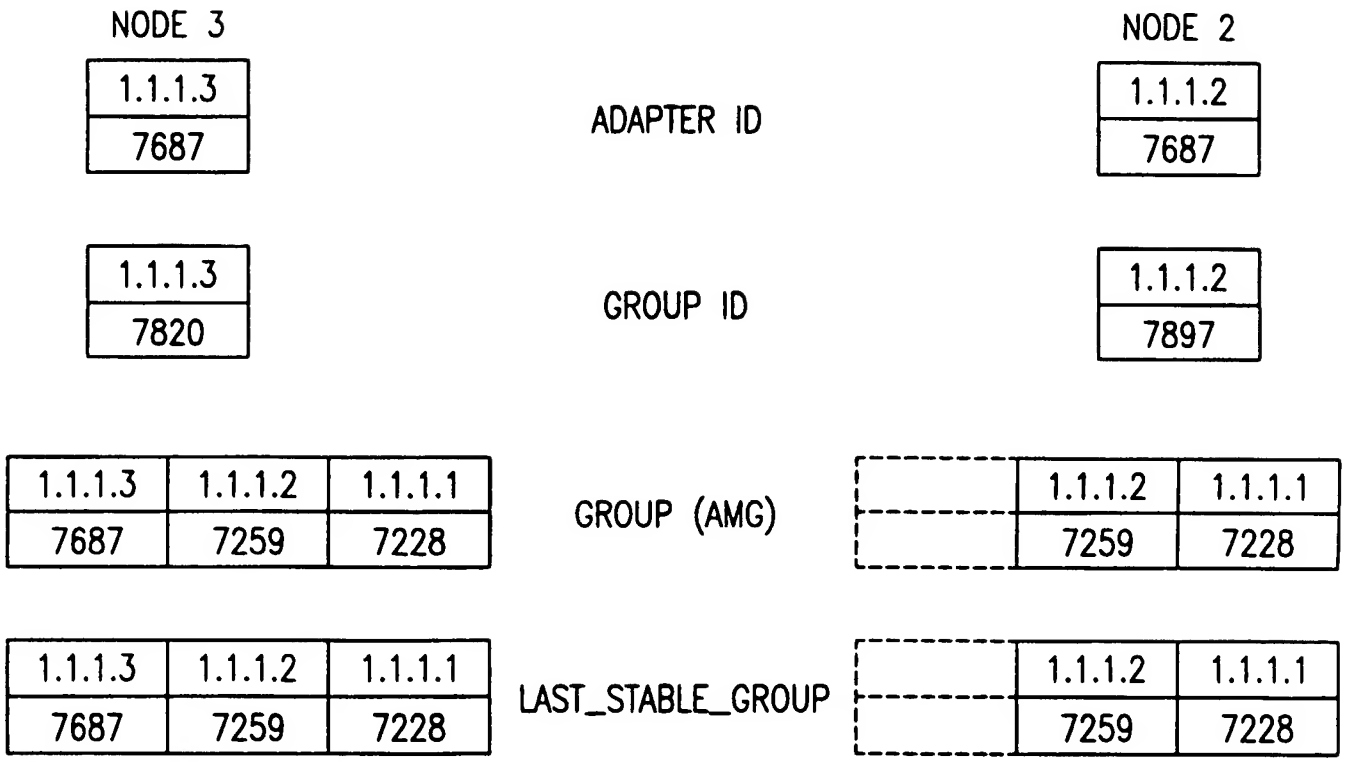

NODE 3
1.1.1.3
7687
ADAPTER ID
NODE 2
1.1.1.2
7687
1.1.1.3
7820
GROUP ID
1.1.1.2
7897
1.1.1.3
1.1.1.2
1.1.1.1
7687
7259
7228
GROUP (AMG)
1.1.1.2
1.1.1.1
7259
7228
1.1.1.3
1.1.1.2
1.1.1.1
7687
7259
7228
LAST_STABLE_GROUP
1.1.1.2
1.1.1.1
7259
7228

FIG.14b

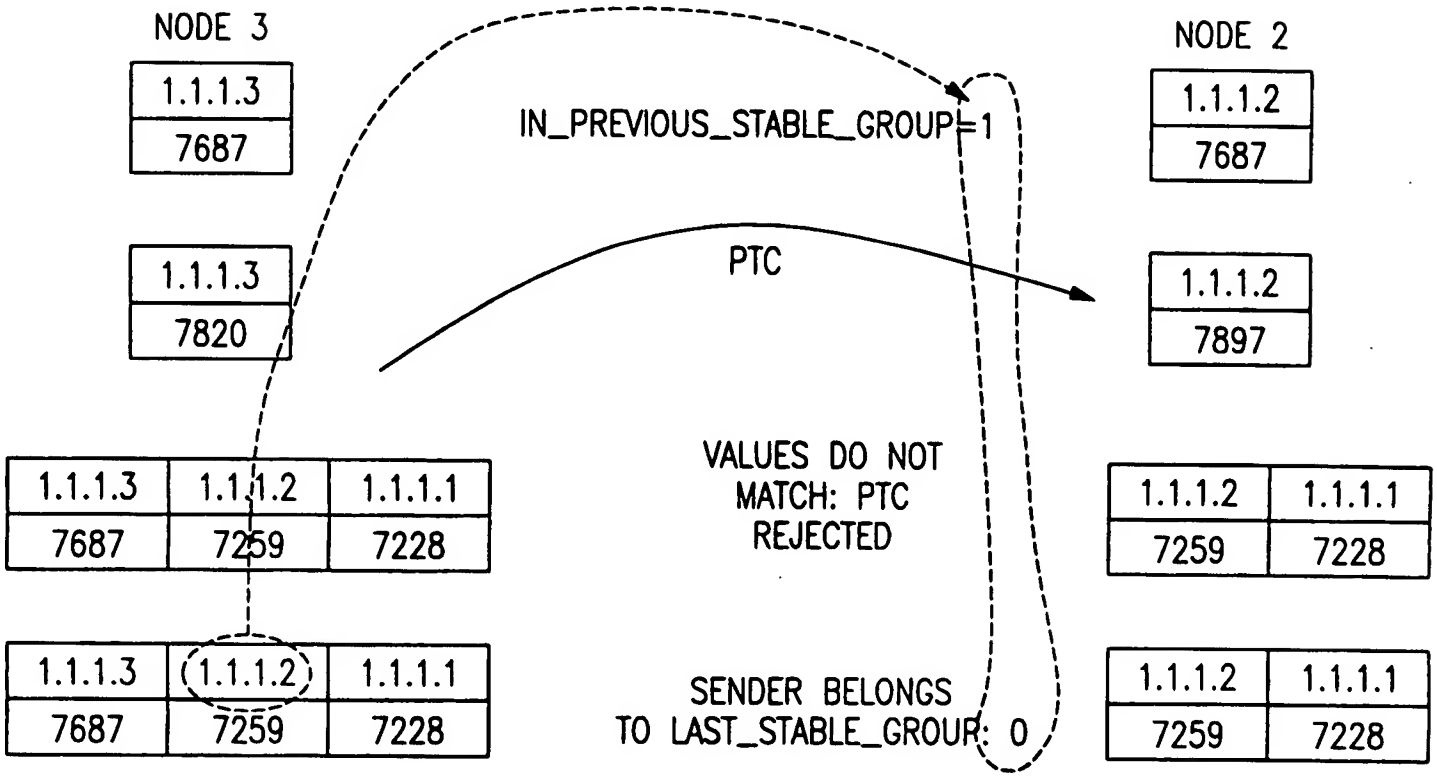

NODE 3
1.1.1.3
7687
1.1.1.3
7820
IN_PREVIOUS_STABLE_GROUP=1
PTC
NODE 2
1.1.1.2
7687
1.1.1.2
7897
1.1.1.3 | 1.1.1.2 | 1.1.1.1
7687 | 7259 | 7228
1.1.1.3 | 1.1.1.2 | 1.1.1.1
7687 | 7259 | 7228
VALUES DO NOT MATCH: PTC REJECTED
SENDER BELONGS TO LAST_STABLE_GROUP: 0
1.1.1.2 | 1.1.1.1
7259 | 7228
1.1.1.2 | 1.1.1.1
7259 | 7228

FIG.14c

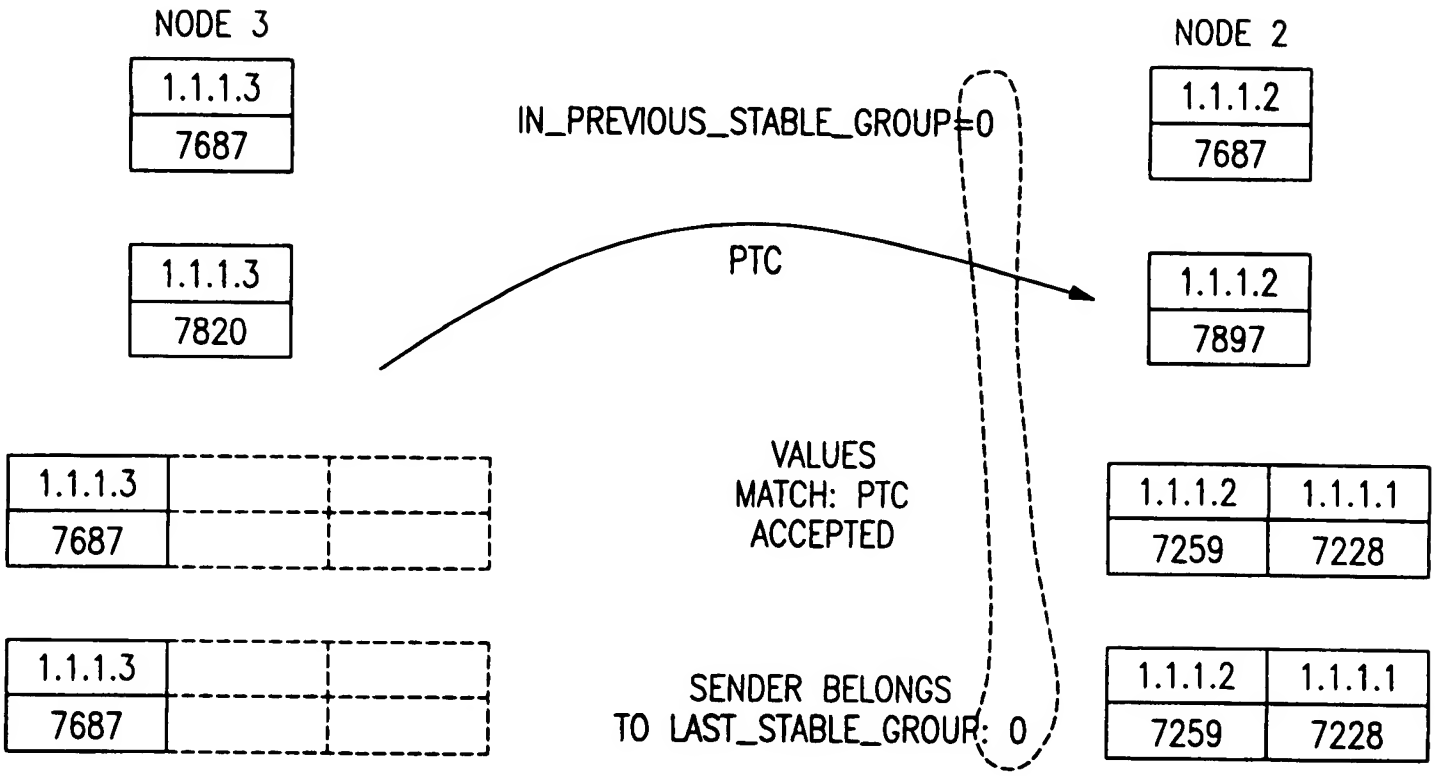

NODE 3
1.1.1.3
7687
1.1.1.3
7820
1.1.1.3
7687
1.1.1.3
7687
IN_PREVIOUS_STABLE_GROUP=0
PTC
VALUES
MATCH: PTC
ACCEPTED
SENDER BELONGS
TO LAST_STABLE_GROUP: 0
NODE 2
1.1.1.2
7687
1.1.1.2
7897
1.1.1.2
7259
1.1.1.1
7228
1.1.1.2
7259
1.1.1.1
7228

FIG.14d

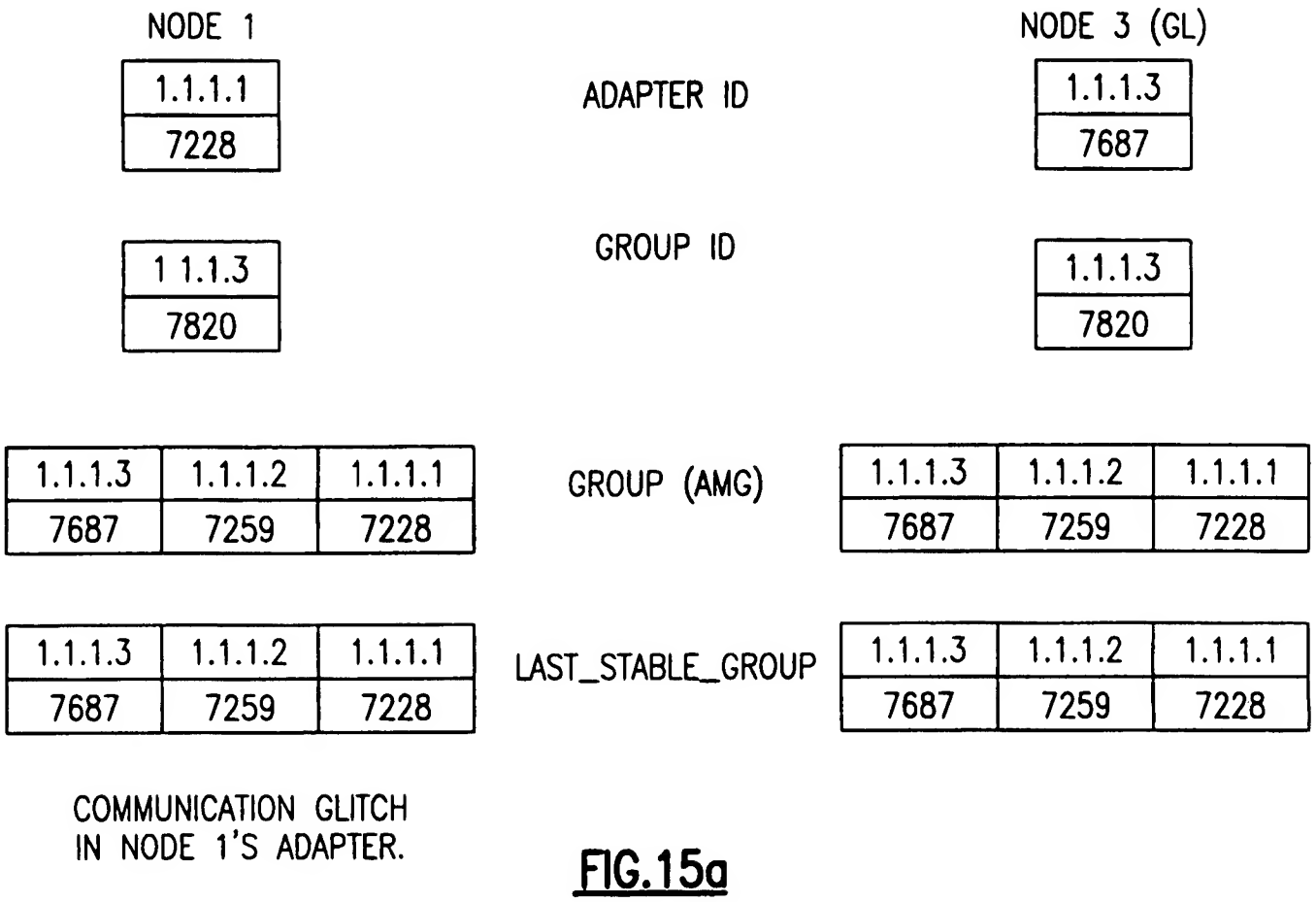

NODE 1
1.1.1.1
7228
ADAPTER ID
NODE 3 (GL)
1.1.1.3
7687
1 1.1.3
7820
GROUP ID
1.1.1.3
7820
1.1.1.3 1.1.1.2 1.1.1.1
7687 7259 7228
GROUP (AMG)
1.1.1.3 1.1.1.2 1.1.1.1
7687 7259 7228
1.1.1.3 1.1.1.2 1.1.1.1
7687 7259 7228
LAST_STABLE_GROUP
1.1.1.3 1.1.1.2 1.1.1.1
7687 7259 7228
COMMUNICATION GLITCH
IN NODE 1'S ADAPTER.

FIG.15a

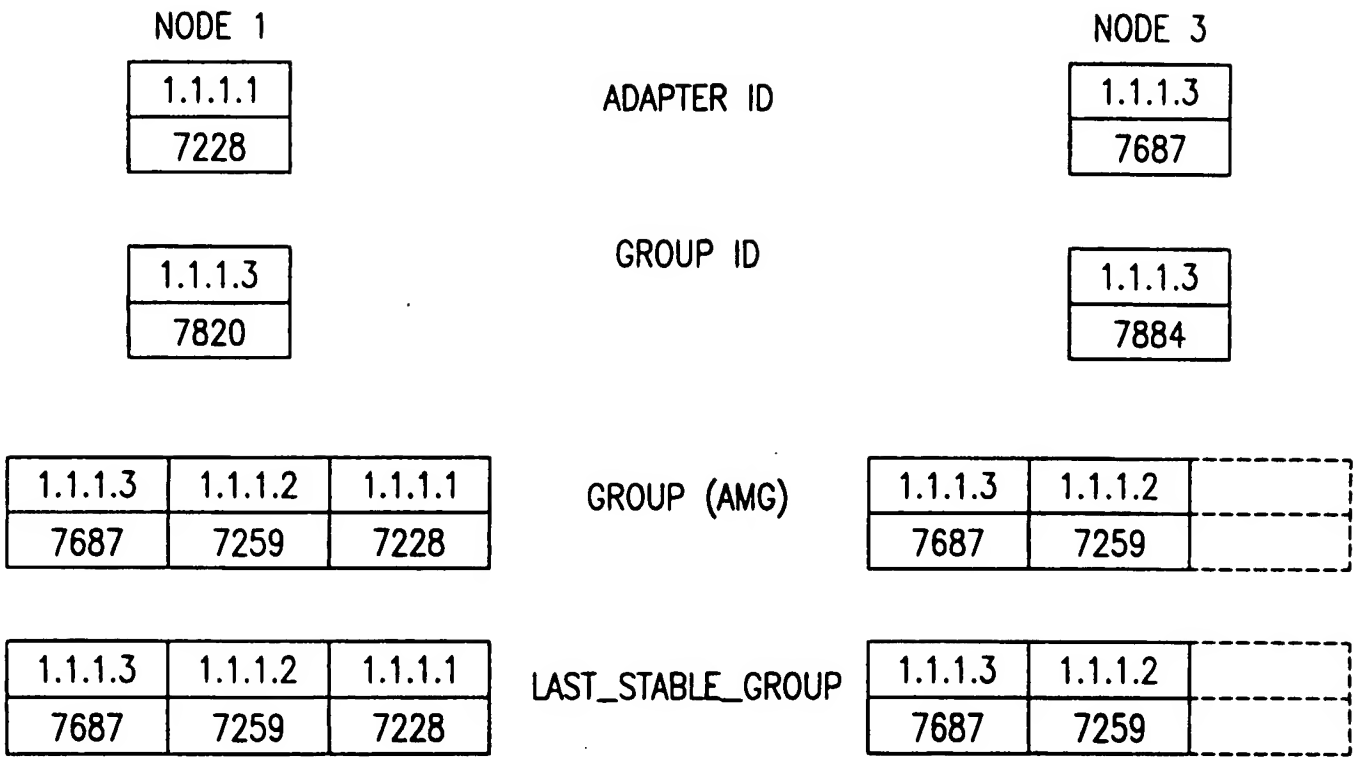

NODE 1
1.1.1.1
7228
ADAPTER ID
NODE 3
1.1.1.3
7687
1.1.1.3
7820
GROUP ID
1.1.1.3
7884
1.1.1.3
1.1.1.2
1.1.1.1
7687
7259
7228
GROUP (AMG)
1.1.1.3
1.1.1.2
7687
7259
1.1.1.3
1.1.1.2
1.1.1.1
7687
7259
7228
LAST_STABLE_GROUP
1.1.1.3
1.1.1.2
7687
7259

FIG.15b

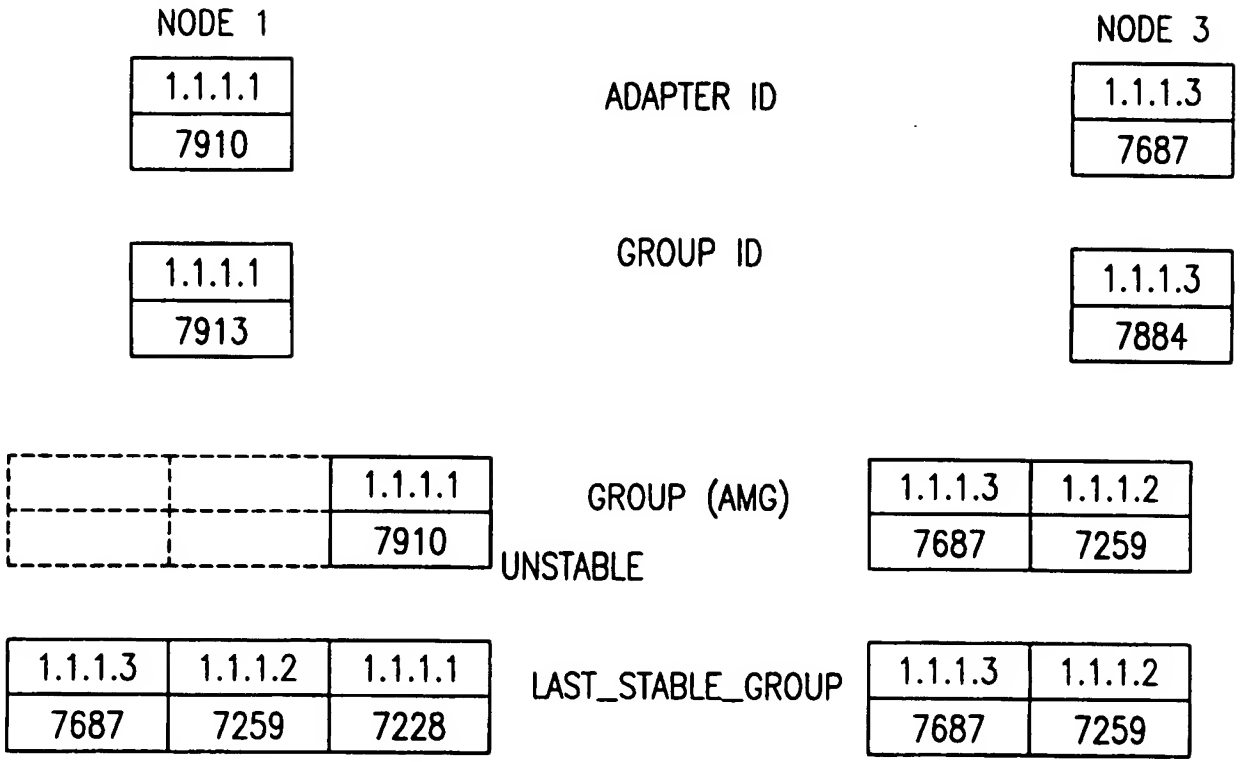

NODE 1
1.1.1.1
7910
ADAPTER ID
NODE 3
1.1.1.3
7687
1.1.1.1
7913
GROUP ID
1.1.1.3
7884
1.1.1.1
7910
GROUP (AMG)
UNSTABLE
1.1.1.3
1.1.1.2
7687
7259
1.1.1.3
1.1.1.2
1.1.1.1
7687
7259
7228
LAST_STABLE_GROUP
1.1.1.3
1.1.1.2
7687
7259

FIG.15c

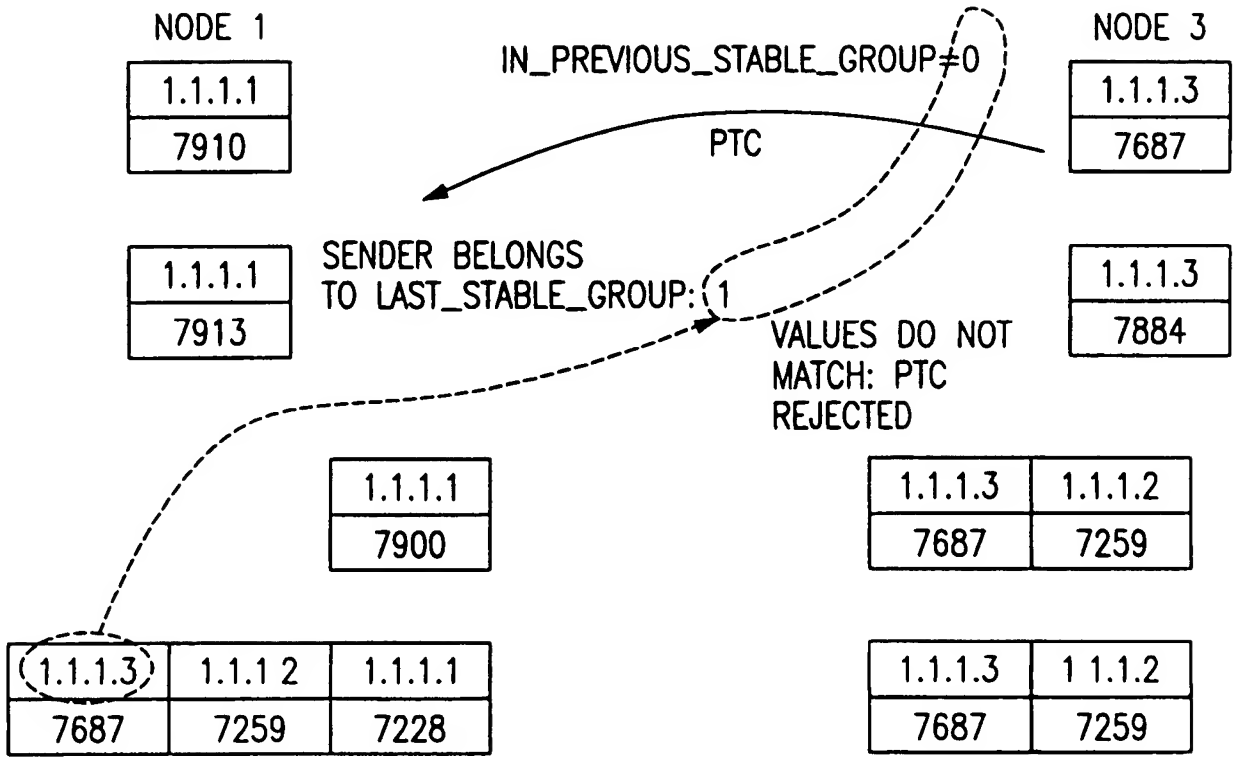

NODE 1
1.1.1.1
7910
IN_PREVIOUS_STABLE_GROUP≠0
PTC
NODE 3
1.1.1.3
7687
1.1.1.1
7913
SENDER BELONGS
TO LAST_STABLE_GROUP: 1
1.1.1.3
7884
VALUES DO NOT
MATCH: PTC
REJECTED
1.1.1.1
7900
1.1.1.3
7687
1.1.1.2
7259
1.1.1.3
7687
1.1.1 2
7259
1.1.1.1
7228
1.1.1.3
7687
1 1.1.2
7259

FIG.15d

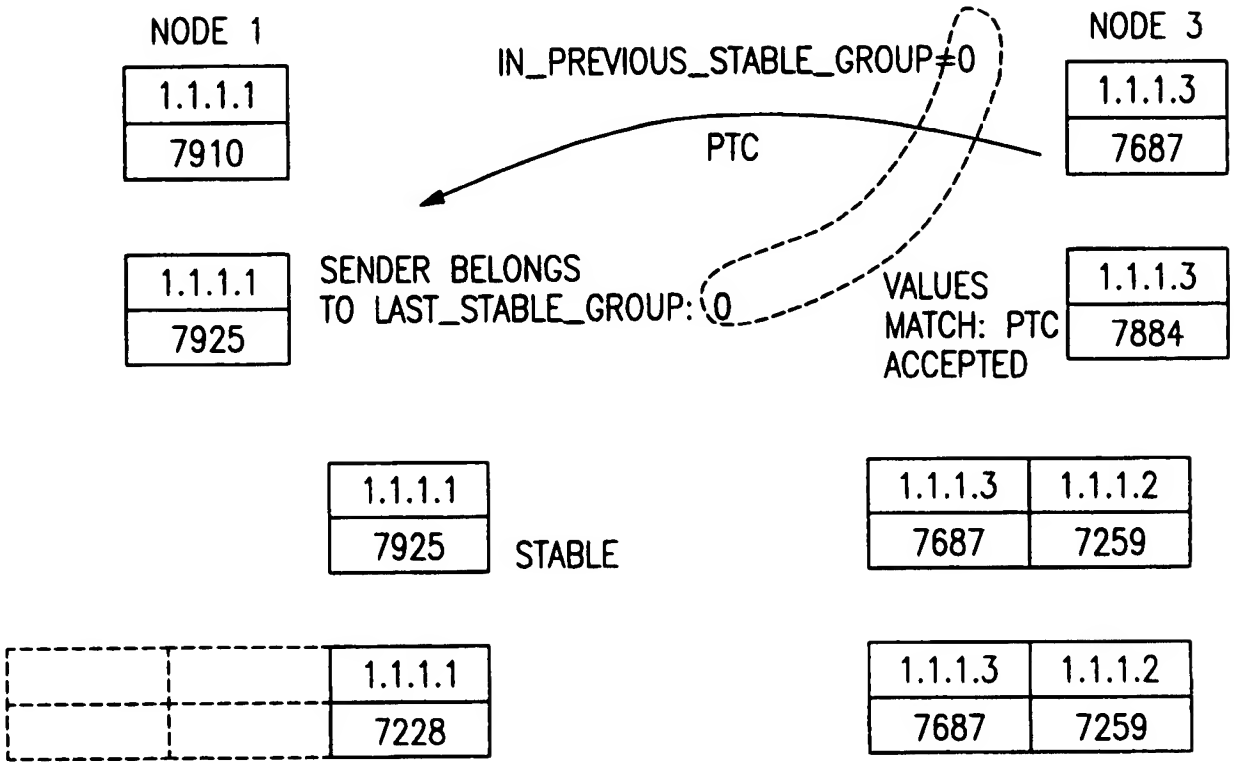

NODE 1
1.1.1.1
7910
IN_PREVIOUS_STABLE_GROUP≠0
PTC
NODE 3
1.1.1.3
7687
1.1.1.1
7925
SENDER BELONGS
TO LAST_STABLE_GROUP: 0
VALUES
MATCH: PTC
ACCEPTED
1.1.1.3
7884
1.1.1.1
7925
STABLE
1.1.1.3
1.1.1.2
7687
7259
1.1.1.1
7228
1.1.1.3
1.1.1.2
7687
7259

FIG.15e